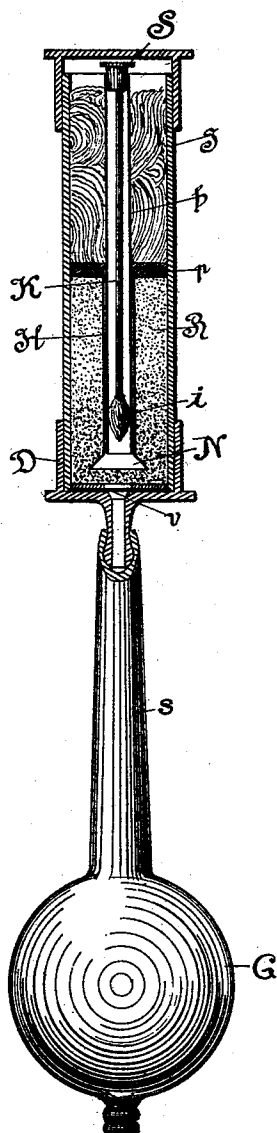


(No Model.)

E. WENIG.  
FLASH OR SIGNAL LAMP.

No. 500,449.

Patented June 27, 1893.



Witnesses:

James F. Duhamel  
Hazel A. Dodge.

EMIL WENIG,  
Inventor,

by Dodge & Sons  
Attys.

# UNITED STATES PATENT OFFICE.

EMIL WENIG, OF BERLIN, GERMANY.

## FLASH OR SIGNAL LAMP.

SPECIFICATION forming part of Letters Patent No. 500,449, dated June 27, 1893.

Application filed April 20, 1892. Serial No. 429,960. (No model.)

*To all whom it may concern:*

Be it known that I, EMIL WENIG, of Berlin, in the Kingdom of Prussia and German Empire, have invented a new and useful Flash or Signal Lamp, of which the following is a specification, reference being had herein to the accompanying drawing.

The revolver-magnesium-flash-lamp has for its object to produce light or illuminating effects in taking photographs, for signals, for ships, in the theater, &c. As the lightning like illumination can also according to this invention be made constant, therefore the present lamp is to be preferred, for the purpose of giving signals, to other means such for example as the fog horn which is often deceptive as a signal. Magnesium, without admixture of explosive substances is employed as the illuminating or flashing mass. The revolver-magnesium-flash-lamp is always ready for use without having to open any cock, and on account of its small weight is adapted for use as a pocket flash lamp. It is necessary to charge it with magnesium to a greater or less extent according to the size of the lamp; and it can be used for a longer and shorter period without recharging.

The drawing represents a vertical sectional view of my improved lamp.

G is a blast or blowing device which leads through a flexible pipe *s* and through the cover D into the space R. The cover D closes the space R in which the magnesium is contained, and said cover D is fitted with a valve *v* to prevent the magnesium from falling into the blowing device. The pipe *h* connects the magnesium chamber R with a second or igniting chamber T, cotton wool saturated with benzine being inserted therein and ignited at the top when in use. A rod K serves to close the pipe *h* by means of a tapered plug S secured to its upper end, preventing the outflow of magnesium or the inflow of benzine. Furthermore the pipe *h* is cleaned by the action of the sponge *i*, secured to the lower end of rod K whenever said rod is removed or inserted.

The regulation of the flame produced from the magnesium, is effected by means of a

second tube H arranged around the tube *h* and provided with a cylinder or funnel-shaped extension N.

The amount of magnesium to be burned may be varied according as the tube *h* is raised or lowered in the tube H. When it is in its lowest position the space that is occupied by the magnesium to be forced out by the blast is small, but when it is raised the space is increased consequent of the tube H being larger than the tube *h*. Furthermore, the magnesium powder when it issues from tube *h*, when said tube is elevated, does not come into such immediate contact with the flame as when the tube is in its lowest position, and the powder has more chance to disseminate and produce a longer flash. If the tube *h* be led to any kind of round burner, then by constantly operating any suitable blowing device, a constant stream of magnesium will be produced so that the flame generated thereby will be a constant flame. A leaden plate *p* may be placed around the tube H above the mass of magnesium for the purpose of pressing the magnesium down more quickly and into the tube *h*.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. In combination with the magnesium and wick containing chambers, a tube in the former, a second tube extending through the wick chamber and into the first tube and adjustable relatively thereto, and means for forcing the magnesium through said tubes.

2. In combination with the chambers R and T, tube H in chamber R, tube *h* extending through chamber T and into tube H, and rod K provided with the cleaner *i* and plug S, the latter adapted to fit the tube *h*.

3. In a flash lamp, a rod provided with a cleaning device and a stopper or plug, also carried by the rod for closing the magnesium outlet.

4. In a flash lamp the combination of chamber T, chamber R, tube H provided with a funnel shaped mouth mounted within chamber R, and a weight encircling tube H and movable thereon.

5. In a flash lamp, the combination of wick

chamber T, magnesium containing chamber  
R, funnel mouth tube H within chamber R,  
washer or weight *p* encircling said tube, tube  
*h* passing through chamber T and into tube  
5 H and adjustable relatively thereto, valve *v*,  
and means for forcing magnesium through  
the tubes, all substantially as described.

In witness whereof I have hereunto set my  
hand in presence of two witnesses.

EMIL WENIG.

Witnesses:

W. H. EDWARDS,  
W. HAUPT.